



Comptroller General
of the United States

Washington, D.C. 20548

Decision

Matter of: Eyring Corporation

File: B-245549.7

Date: March 31, 1992

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preparation of the decision.

DIGEST

1. Protest alleging that agency improperly classified proposed image generator as a non-developmental item is denied where agency reasonably determined that proposed modifications to already developed and available system were not major.

2. Where protester does not dispute in its comments agency's response in the agency report concerning awardee's compliance with certain technical requirements, protest issues are deemed abandoned.

3. The General Accounting Office will not consider an allegation that an awardee will be unable to furnish the equipment that it has proposed, since whether an awardee can and will deliver equipment in conformance with contract requirements are matters of responsibility and contract administration.

DECISION

Eyring Corporation protests the award of a contract to AAI Systems Management Inc. under request for proposals (RFP) No. N61339-90-R-0004, issued by the Naval Training Systems Center for visual upgrades to Navy helicopter weapon system trainers. Eyring contends that AAI proposed to furnish an image generator that the Navy improperly classified as a non-developmental item (NDI), thereby permitting AAI to avoid incurring the expense of complying with the solicitation's extensive testing requirements for trainer

unique equipment. Further, Eyring asserts that the image generator and the display system proposed by AAI fail to comply with numerous technical requirements of the RFP. In addition, the protester complains that the Navy violated the terms of the RFP, which required a demonstration of the major components of the visual system lasting no longer than 8 hours, by allowing AAI 16 hours to demonstrate its system.¹

We issued a decision responding to Eyring's protest on January 24, 1992, Eyring Corp., B-245549.2, Jan. 24, 1992. Because the decision incorporated protected information, it was issued subject to the terms of a General Accounting Office protective order and was released only to the parties admitted to the protective order. We asked those parties to assist us in identifying those portions of the decision that contained protected information and should therefore not be released to the general public. We have now received and considered those comments, and have relied on them in preparing the following redacted version of our original decision.

We deny the protest in part and dismiss it in part.

BACKGROUND

The RFP

The RFP required proposals for the design, development, manufacture, integration, testing, and delivery of visual system upgrades for three U.S. Navy helicopter weapon system training devices: Device 2F146 (corresponding to the SH-60F Seahawk/CV Helo); Device 2F106 (corresponding to the SH-2F Seasprite); and Device 2F135 (corresponding to the SH-60B Seahawk). The trainers, which are used to simulate helicopter flights in varying atmospheric and light conditions, consist of five principal subsystems: a host computer; an image generator; an image display system (i.e., projectors, a screen, and a dome); an instructor monitor and control system; and a motion system. The upgrade was to include replacement of the image generation and display systems on all three devices; upgrade of the instructor display processing system of Device 2F106; replacement of the motion systems of Devices 2F106 and 2F135; and integration of the

¹In two supplemental protests (B-245549.3 and B-245549.4) filed with our Office after receipt of the agency report responding to this protest, Eyring raised additional grounds of protest concerning the technical acceptability of the image generator and the display system proposed by AAI. We are currently considering the issues raised in these protests and will respond to them in a second decision.

image and display systems, motion systems, and instructor displays of the three devices.

The solicitation encouraged offerors to use NDI in the trainer design. NDI was defined as "already developed and available equipment [including] software capable of fulfilling operational requirements either 'as is' or with minor modifications or Commercial Off The Shelf (COTS) [equipment]."² A "Prequalified Training Equipment List," which identified previously qualified NDI, was included in the RFP, and offerors were advised that proposed NDI not selected from the list would be subject to qualification by the government. The solicitation further advised that inability to comply with the NDI qualification requirements would result in disqualification of the proposed equipment and its reclassification as trainer unique equipment.

The RFP identified four categories of NDI and listed the qualification data required for each. As relevant here, Category B NDI consisted of fully developed commercial equipment--defined as equipment that was fully developed and built (prototype, preproduction model and first production unit)--available for government test and evaluation and manufactured by an established commercial manufacturer with documented quality history.³

²The statutory definition of NDI, set forth at 10 U.S.C. § 2325 (Supp. II 1990), is as follows:

- "(1) any item of supply that is available in the commercial marketplace;
- (2) any previously developed item of supply that is in use by a department or agency of the United States, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;
- (3) any item of supply described in paragraph (1) or (2) that requires only minor modification in order to meet the requirements of the procuring agency; or
- (4) any item of supply that is currently being produced that does not meet the requirements of paragraph (1), (2), or (3) solely because the item
 - (A) is not yet in use; or
 - (B) is not yet available in the commercial marketplace."

³The other three categories of NDI were as follows:

- Category A: COTS equipment or software;
- Category C: Equipment already developed and in use by the Navy and other U.S.

The RFP also set forth in detail the required characteristics of the image generation and display systems. The specification stated that these systems were to provide real-time "out-the-window" visual displays of the surrounding environment corresponding to the simulated aircraft flight conditions received from the host trainer. The systems were to compute and display scenes consisting of point lights and surfaces (polygons) combined with stored image data. The specification further required that the systems provide all of the visual information needed by the crew to assess aircraft position, attitude, and motion and that it provide realistic depth perception over 3-dimensional (3-D) and flat terrain and ocean surfaces.

The specification required that the image generator be capable of generating a number of different types of scenes, including airfield formation flight, ocean, shipboard landing, anti-submarine warfare, and sea search and rescue scenes. The specification also required that the image generator be capable of simulating a variety of atmospheric and meteorological effects (i.e., clouds, haze, fog, rain, lightning, sky and horizon, and storm cells) and that it be capable of simulating various conditions of natural illumination (corresponding to day, dawn, dusk, and night) and artificial illumination, such as landing lights and search lights. Further, the specification required that the system be capable of simulating motion, including rotor wash, within the scenes depicted. In addition, it set forth a number of requirements relating to image quality, including requirements concerning field of view, visual image sharpness, luminance, contrast, color, and occulting (hidden surface elimination).

The RFP provided for award to the offeror submitting the lowest priced, technically acceptable proposal. The solicitation required that during discussions each offeror conduct a demonstration of the major components of its visual system to substantiate required performance characteristics which could not be conclusively proven by data and analysis. The RFP advised that a total of 8 hours, at no more than two locations, would be permitted for this demonstration.

Category D: military services and government agencies; and Equipment already developed by foreign governments which shall be supplied to the Navy in accordance with mutual defense cooperation agreements and federal and military service acquisition regulations.

Receipt of Proposals and Award

Six offerors, including AAI and Eyring, submitted proposals in response to the RFP. The source selection board determined that all proposals, though marginal, were susceptible of being made acceptable through discussions and recommended that all six offerors be included in the competitive range.

The agency conducted extensive oral and written discussions with all offerors and requested revised proposals. The agency determined that none of the revised proposals were acceptable, notified offerors of the remaining deficiencies in their proposals, and requested another round of revised proposals. Upon evaluation of these proposals, all offerors were determined to be technically acceptable. The agency then requested best and final offers. AAI offered the lowest price of \$44,892,684; Eyring's price was second low.

In its original proposal, AAI, along with Eyring and two of the other competitors, proposed to furnish an Evans and Sutherland (E and S) ESIG-3000 image generator. After the system demonstration, however, where, according to AAI, the E and S system performed poorly, AAI amended its proposal to replace the E and S system with a Star Technologies, Inc. Graphicon 2000 (G2000) image generator configured to meet the specific requirements for the visual upgrade. In a second demonstration, AAI demonstrated the commercially available model of the G2000 family, the G2000/PTX. AAI was awarded the contract as the lowest priced, technically acceptable offeror.

THE NDI

Eyring contends that the modifications AAI proposes to make to the G2000/PTX to make it comply with the solicitation's requirements are major and that the proposed image generator was therefore not properly classified as NDI.

We will examine an evaluation of technical proposals to ensure that it was reasonable and consistent with the stated evaluation criteria. Fairfield Mach. Co., Inc., B-228015; B-228015.2, Dec. 7, 1987, 87-2 CPD ¶ 562. Therefore, the determination as to whether modifications to already developed and available equipment are minor--and thus whether the equipment properly fits within the definition of NDI--is a technical judgment, which we will overturn only if it is shown to be unreasonable. In considering whether a modification is in fact minor, the agency should consider both the technical complexity of the change and the degree of risk associated with it. A protester's disagreement with the agency's judgment in these matters is not sufficient to establish that the agency acted unreasonably. Ronnoc, Inc., B-243729, Aug. 19, 1991, 91-2 CPD ¶ 163.

In its proposal, AAI identified a number of changes that would be required to the demonstrated G2000/PTX system to provide the proposed performance. We have reviewed these changes in camera, and have considered the arguments of counsel for the protester and its expert, to whom the portions of AAI's proposal describing the changes were released pursuant to a protective order, as to their magnitude. Based on our review of the record, we find that the agency reasonably concluded that all of the modifications to the Star Technologies G2000/PTX image generator proposed by AAI were minor. Thus, we find that the agency properly classified the equipment as an NDI.

COMPLIANCE WITH TECHNICAL REQUIREMENTS

Calligraphic Light Points

Eyring further alleges that the image generator proposed by AAI will not meet the solicitation's requirements concerning high resolution light points. Specifically, the protester asserts that the proposed system will not properly display, occult, or attenuate high resolution light points, nor will it provide for proper interaction between high resolution light points and other scene elements.

The specification, under the heading "visual image sharpness," required that:

"[E]nhanced resolution be provided for critical scene elements which must be seen clearly when the projected size is small. Calligraphic images drawn during vertical retrace are the assumed solution. Resolution . . . for critical items shall be as indicated in the table below. . . ."

The table which followed required that the proposed system provide high resolution light points with a minimum calligraphic light point resolution of 4.0 arc minutes per optical line pair in zone 1.

AAI proposed to meet the specified calligraphic resolution requirements by adding a commercially available calligraphic light point board to its image generator, a solution which the agency determined to be technically acceptable.

Eyring contends that AAI's proposed solution will not be adequate to meet the solicitation's requirements because raster light points (the type of light points produced by the unmodified image generator) and calligraphic light points are displayed at different times (i.e., the raster light points are drawn as the electron beam moves across the video screen, in a series of lines, from top to bottom, whereas the calligraphic light points are displayed during

vertical retrace, while the electron beam moves back from the bottom of the screen to the top). According to the protester, because calligraphic light points are not drawn at the same time as other raster images, the calligraphic light point data must be extracted and processed separately from other scene data, so that it can be separately sent to the light point board for display during vertical retrace. The protester contends that the image generator proposed by AAI does not have the ability to extract calligraphic light point data from other scene data.

We fail to see why the fact that calligraphic light points are not drawn at the same time as raster images necessarily implies that they must be calculated separately from other scene data. AAI denies that in its proposed system, calculations of light points must be segregated from calculations of other scene elements. The record supports AAI's position.

Occultation, 3-D Ocean, Ship Wakes, and Rotor Wash

The protester also complains that AAI failed to comply with technical requirements in the solicitation related to dynamic object occultation, 3-D ocean model, ship wakes, and rotor wash.

The specification required, with regard to occulting, that the proposed image generation and display system provide "general, all inclusive occulting of objects which are behind other objects without any restrictions on orientation or real-time motion of objects." In addition, it required that "moving models shall be properly occluded by intervening terrain and other visual features without limitation." Further, with regard to ocean scenes, the specification required a 3-D model consisting of a highly detailed seascape of 3-D waves with texture over 1 nautical mile by 1 nautical mile around the aircraft. It also required that moving ships display both bow and stern wakes, varying in position and size depending on the size and speed of the ship. Finally, with regard to rotor wash, the specification provided that both the wash pattern on the ground and water and the effect of the blown particles in the air were to be simulated.

The agency reports that AAI's proposal, as revised, complied with these technical requirements and further, that compliance was demonstrated during AAI's visual system demonstration. In commenting on the agency report, Eyring does not take issue with the agency's response regarding AAI's demonstrated compliance in these four areas. We therefore consider it to have abandoned these issues. Arjay Elecs. Corp., B-243080, July 1, 1991, 91-2 CPD ¶ 3.

Luminance and Contrast Ratio

Next, Eyring alleges that the integrated display system offered by AAI fails to meet the minimum luminance and contrast ratio values set forth in the solicitation by zone. The values for each zone were as follows:

	<u>1</u>	<u>2 & 3</u>	<u>4 & 5</u>
Luminance (20 percent duty cycle) (in foot lamberts)	5.0	4.0	3.5
Luminance (100 percent duty cycle) (in foot lamberts)	3.5	3.0	2.5
Contrast ratio	10:1	10:1	10:1

AAI proposed as part of its first revision to its technical proposal a display system that included a particular type of screen.⁴ However, the Navy advised AAI during discussions that based on its measurements of the luminance of AAI's proposed projector and its extrapolation of those measurements to the proposed display configuration, it did not believe that the system as proposed would meet the minimum luminance values set forth in the specification. In response, AAI revised its proposal to provide for a different type of screen. The agency calculated, again extrapolating from the projector demonstration results, that a display system incorporating this type of screen would meet the luminance requirement. The Navy further concluded, based on its experience with similar screens in other systems, which have been able to provide the required contrast ratio of 10:1, that the proposed screen would meet the minimum contrast ratio.

In commenting on the agency report, the protester does not dispute the agency's conclusion that the minimum luminance values can be met by a display system incorporating the type of screen proposed by AAI. Rather, the protester now argues that the agency failed to consider the impact that the substitution of this type of screen for the previously proposed type would have on other solicitation requirements relating to luminance variation, viewing volume, and image perspective and geometric accuracy. Eyring also asserts that AAI will be unable to furnish the type of screen that it has proposed. According to Eyring, the corporation which owns the patent for the material used in the screen, has contractually agreed that no companies other than E and S and General Electric (GE) can obtain a license for the

⁴AAI has asked that we not identify the types of screens that it proposed, since it views this information as proprietary.

tooling which is necessary to manufacture the material. Further, according to the protester, AAI has not sought to obtain the material from E and S; thus, Eyring concludes that it must intend to obtain the material from GE. The GE material will be insufficient to meet the solicitation's minimum luminance requirements, however, Eyring asserts.

We dismiss as untimely the protester's arguments regarding the agency's failure to consider the impact of substitution of a different type of screen on other solicitation requirements. Eyring received a copy of a memorandum, October 17, 1991, upon which it bases these allegations, which explained the basis for the agency's conclusion that AAI's proposed system would meet the minimum luminance and contrast ratio values, but did not raise these issues until its November 27 filing commenting on the agency report. Thus, the issues were not raised within 10 days after the basis for protest was known, as required by our Bid Protest Regulations, 4 C.F.R. § 21.2(a)(2) (1991).

Further, with regard to Eyring's allegation that AAI will not in fact be able to furnish the type of screen that it has proposed, whether an offeror can and will deliver equipment in conformance with contract requirements are matters of responsibility and contract administration, which our Office will not consider. Caelter Indus., Inc., B-203418, Mar. 22, 1982, 82-1 CPD ¶ 265.

The protester also challenges the validity of the agency's conclusion that AAI's proposed system will meet the specification's minimum contrast ratio values. Eyring alleges that the agency blindly assumed that since a different company, its subcontractor E and S, had been able to meet a similar contrast ratio requirement on a different contract using similar, but not identical, material, AAI would be able to meet the requirement.

In response, the agency denies that it based its conclusion that AAI would be able to meet the solicitation's minimum contrast ratio value with its proposed screen solely on its experience with the E and S system. Accordingly to the agency, its experience with similar screens is not limited to E and S systems. Thus, the protester's argument is premised on a false assumption.

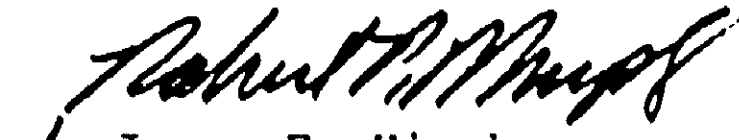
DEMONSTRATION

Finally, the protester argues that the agency violated the solicitation provision allowing no more than 8 hours for demonstration of visual system components by permitting AAI to conduct a full day demonstration of its revised image

generation and display system (incorporating the Star Technologies image generator) after AAI had already participated in a full day demonstration of the E and S system that it had originally proposed.

We do not think that the agency violated the terms of the solicitation by permitting AAI an additional 8-hour period to demonstrate its revised solution. The solicitation did not restrict each offeror to an 8-hour demonstration period; rather, it limited the amount of time for demonstration of a particular system to 8 hours.

The protest is denied in part and dismissed in part.


for James F. Hinchman
General Counsel